Application No.: 09/936,682
Art Unit No.:   2671

<div align="center">

LISTING OF CLAIMS

</div>

Claims 1-43 (canceled).

44.   (previously presented)   A method for imaging a three-dimensional data volume, said three-dimensional data volume comprising a plurality of voxels, each voxel comprising a three-dimensional location and a dataword, said method comprising:

positioning a face of a probe at a first position within said three-dimensional data volume;

forming a first set of control points on said face of said probe for tracking a physical phenomena described by said three-dimensional data volume, said first set of control points defining a first spline curve;

moving said face and said probe to a second position within said three-dimensional volume;

forming a second set of control points on said face of said probe for tracking said physical phenomena, said second set of control points defining a second spline curve;

interpolating between said first spline curve and said second spline curve to define a three-dimensional surface representative of said physical phenomena; and

forming a plurality of v-curves which interconnect between respective control points at said first position of said probe and said second position of said probe.

179294v1   -2-   **BEST AVAILABLE COPY**

PAGE 3/7 * RCVD AT 11/23/2004 10:28:57 AM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:713 * DURATION (mm-ss):01-46

Application No.: 09/936,682
Art Unit No.: 2671

45. (previously presented) The method of Claim 44, further comprising:

displaying said spline curves and said v-curves, said spline curves and said v-curves forming a grid representative of said physical phenomena, said grid having a plurality of intersections between said spline curves and said v-curves.

46. (previously presented) The method of Claim 45, further comprising:

selecting one of said plurality of said intersections, and moving said intersection to thereby edit said grid.

47. (previously presented) The method of Claim 45, further comprising:

selecting one of said plurality of intersections to thereby reposition said face to pass through said intersection.

48. (previously presented) The method of Claim 45, further comprising:

selecting one of said first set of control points and said second set of control points to thereby reposition said face to pass through one of said first set of control points and said second set of control points.

49. (previously presented) A program storage device readable by a machine, embodying a program of instructions executable by machine to perform method steps for imaging a three-dimensional data volume, said three-dimensional data volume comprising a plurality of voxels, each voxel comprising a three-dimensional location and a dataword, said method comprising:

179294v1   -3-

Application No.: 09/936,682
Art Unit No.:   2671

positioning a plane at a plurality of plane positions within said three-dimensional

data volume;

forming a set of control points at each of said plurality of plane positions such that

each of said set of control points defines a related spline curve; and

interpolating between each of said spline curves to form a surface representative

of a physical phenomena described by said three-dimensional data volume; and

forming a plurality of v-curves which interconnect between respective control

points at said plurality of plane positions.

50.   (previously presented) The method of Claim 49, further comprising:

displaying said spline curves and said v-curves to form a grid representative of

said physical phenomena, said grid having a plurality of intersections between

said spline curves and said v-curves.

51.   (previously presented) The method of Claim 50, further comprising:

selecting one of said plurality of intersections, and moving said intersection to

thereby edit said grid.

52.   (previously presented) The method of Claim 50, further comprising:

selecting one of said plurality of intersections to thereby reposition said plane to

pass through said intersection.

179294v1   -4-

Application No.:   09/936,682
Art Unit No.:   2671

53.   (previously presented)   The method of Claim 50, further comprising:

selecting one of said sets of control points to thereby reposition said plane to pass

through said one of said sets of control points.

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

❑ **BLACK BORDERS**

❑ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

❑ **FADED TEXT OR DRAWING**

❑ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

❑ **SKEWED/SLANTED IMAGES**

❑ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

❑ **GRAY SCALE DOCUMENTS**

☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**

❑ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

❑ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.
As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.